G. R. S. IX-5]

Previous references.

1921.

(IHC)

File No. 58-21

Serial Nos 1, 1a 2-8, 8a, 9-11.

Later references.

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. 13

Part B for Jan 22

SUBJECT.

In Ventilator - Process for the Conversion of Synthetic Ammonia into a Solid Product applicable for agricultural purposes in Conjunction with the production of Carbonate of Soda.

11.7 No 3033 of 23.11.21 Authorising the applicant to file a Specification of the Invention referred to

11.9 3838 of 11.1.22 — notifying the filing of the Specification of the Invention referred to above

WD 1888—GPB—16,926—23-7-21.

31-8-21 15.21 779

G. R. S. III-2]

General and Revenue Secretariat. | G & C File No. 58 of 1921.

Serial No.	
1A	From Leg Office 427 dt 15-8-21 Acknowledges the receipt of Rs 10/-
2	To W. Grant Rose Esq 1286 dt 26-8-21 Acknowledges the receipt of the appl, returns the Memo of Rs & States that the appeal is receiving attention.
3	To The Supdt of Stamps 1287 dt 26-8-21. Forwards the power of attorney & the deed of assignment for being impressed with Stamps.
4	To The Secy, Bd of Revenue No 1288 dt 26-8-21 Forwards the appl for opinion
5	To the Supdt of Stamps 86 dt 31-8-21 ~~Acknowledges the receipt of~~ Returns the documents duly Stamped (Ex 3)
6	From the Secretary, Bd of Revenue Advice No 18 dt 29-10-21 Returns the application & States that the Reference may be granted to file the Specification.

Submitted with a draft
Jpn
7/11

NOTE—Contn. sheet.

7-11-21

9934
2977
779

(3)

Serial No.	
7	To W. Grant Rose Esq 3033 dt 23-11-21 Authorises us filing of the Specification.
8.	From W. Grant Rose Esq Letter dt 10-12-21 Advises remittance of filing fee & requests that the Specification may be / Submitted with three drafts. The drafts being of G.O. (Rl 7) require signature. TRR will be / duly entered & submitted separately.
	Addl: 27-12-21. Init A. Dme K. Prasad 27.12.21.
8(a)	T.R.R No 470 dt 6.1.22 acknowledging the sum of Rs 30/- in the Treasury.
9	No 3838 dt 11.1.22 Notifying the filing of the Specification reptd
10	No 3839 dt 11.1.22 to Mr Grant Rose forwarding the notification dtd.
11	Nos. 3840-2 dt 11.1.22 to the Supdt. Govt Museum, Chief Engr. Mysore, Secy BA of Sc. Advice for obtaining for record & Copy of the Specn.

NOTE—Contn. sheet.

Read by mg/s post

15-3-21-20

Dno 779 (W)
82-824

3570

Dtc 58-21-1

From

Mr. W. Grant Rose
Solicitor

2 Hastings Street
Calcutta.

GEN & REV. SECTT.
1 AUG 1921

To

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore
General and Revenue Secretariat
Bangalore.

Calcutta 26th July 1921.

Sir,

I beg to enclose herewith the necessary papers in respect of an application for leave to file a Specification on behalf of my clients L'Air Liquide Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude in respect of an invention for "Process for the conversion of synthetic Ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda."

The following papers are enclosed herewith namely :-

(1) Application in duplicate
(2) Power of attorney
(3) Assignment
(4) Specification in duplicate.

I am sending you a money order for Rs.12/- of which Rs.1/- is for the Mysore Government Stamp on the Power of attorney and Rs.1/- for the Mysore Government Stamp on the assignment and Rs.10/- being the prescribed fee for the application.

I

(W)

I may mention that the present application is based on my clients Indian application No.7050 of 1921 filed on the 3rd June 1921.

I have the honour to be,

Sir,

Your most obedient servant,

W Grant Rose

Enclo:

(6

COUPON. The remitter may write here any communication to the payee.

Rs. 12/- As. Amount remitted in respect of Patent application to Dewan of Mysore on behalf of L'Air Liquide etc corresponding to Indian Patent application No. 7060 of 1921.

To Dr. 1/8/21

W. Grant. Rose, Solicitor
2 Hastings Street
Calcutta
Remitter.

(15-21)

J & C 58-21

J & C 58-21-1 A.

(7)

Duplicate.

(To be returned to the General and Revenue Secretariat for being placed in the file.

1. No. 427
2. Date of Remittance 15/8/21
3. From whom received Mr. H. Grant Rose Solicitor & Notaries of Calcutta
4. Date of receipt of amount in the General and Revenue Secretariat 1-8-21
5. On what account Application Fee in respect of C. of 21-22.
6. Amount (in figures and words) 10/- ten rupees only
7. The head to which it should be credited .....

(To be filled in by the Treasury.)

for Secretary to Government,
~~General~~ Revenue Department.

STATE HUZUR TREASURY
AUG 15 1921
BANGALORE

The above amount has been duly received and credited in the Treasury on this date.

Date

Hd. Acctt. *Treasurer.* *Try. Officer.*

N. B.—Both the counterfoil and the duplicate to be returned to the General and Revenue Secretariat duly signed by the Treasury Department.

Dy no replied to 779 Annexure sent by Mono no 9479 dt 31-8-21 sent 15-9-21

2no 1284/Enc 1/2 Re 2 dt 5-8-21

8

To

The Grant Rose Esq.,

Solicitor, 2nd Hastings Street,

Calcutta.

Sir,

I am directed to acknowledge the receipt of your letter dated 26.7.21 forwarding an application for leave to file a specification on behalf of your clients L'Air Liquide Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude in respect of an invention for "Process for the Conversion of Synthetic Ammonia into a Solid product applicable to agricultural purposes in conjunction with the production of Carbonate of Soda", and to state that a sum of annas 8/- is returned herewith since the value of the stamp required for assignment is annas 8/- only. I am to add that the application is receiving the attention of Govt.

I have etc.,

15.9.21

For Secy. to Govt.
Edn. Dept.

x based on Indian patent appn no 7050 of 21.

Dy 26/8/21

Secy to SR

1/13/8

15-21

Annexure + letter sent 31-8-21

(9)

G. R. S. VI—s.v/14]

DRAFT.

SUBJECT.....

.....

.....

Section. Ire
File No. 58-21
Serial No. 3

Diary No. of letter replied to.....

No 1287/Encls 2 + Rs 1-8-0

GENERAL AND REVENUE SECRETARIAT
( )
, *the* *191*

To

The Supdt of Stamps
Bangalore

Date of issue.....26/8/21.....

Signed by.....Mr MSR.....

x L'Air Liquide Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude 48 Rue St Lazare Paris.

Has the honor to forward herewith a Power of Attorney executed by.....x.....

.....

constituting Mr N. Grant Rose, Solicitor 2 Hastings St Calcutta as Agents in respect of ~~his~~ their invention

for.....Process for the Conversion of Synthetic Ammonia into a solid product applicable for Agril. purposes in Conjunction with the production of Carbonate of Soda"

and to request that the same may be impressed with the Mysore General Stamp of the value of Rupee One, also herewith forwarded, and the Power returned to this office. Also a deed of assignment executed by Georges Claude in favour of the Company referred to in

Sent with half a rupee + Mag Rimg to be impressed with the Stamp of that value + Returned

By Order,

MSy 15/8/21

For ~~Chief~~ Secretary to Government.

11/8/21

EDR Sept 15

List of enclosures.

Copied by.....

Examined by... .....

WD 02293—GPB—1,000—2-2-18

G. R. S. VI.—s-v/16]

DRAFT. 15-21

(16)

SUBJECT 16
1518

Section etc
File No. 58-21
Serial No. 4

Diary No. of letter replied to.....

No. 1288/Secy 2

To

The Secy. Bd of Sc. Advice
Bangalore

GENERAL AND REVENUE SECRETARIAT,
( )
the.....*191* .

Has the honor to forward herewith for report under Sec. 6, Cl. (2) of the Mysore Inventions and Designs Regulation, XI of 1894, an application for leave to file a specification of an invention for

a Process for the Conversion of Synthetic Ammonia into a solid product applicable for Agril. purposes in conjunction with the production of Carbonate of Soda

Date of issue 26/8/21

Signed by M.V.M.S.R.

By Order,

Received from Messrs V. Grant Rose Solicitor 2 Hastings St. Calcutta on behalf of his clients L'Air Liquide Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude of 48. Rue St Lazare Paris.

M.S.R. 1578

for Secretary to Government.

E. Rangaiya

1/3/89

Ans

List of enclosures.

Copied by.....

Examined by.....

WD 02295 -GPB—1,000—2-8-18

PHC 88-24-5

(11)

Copy of Letter No. 86 dated 31st August 1921 from the Superintendent of Stamps in Mysore, Bangalore to the Secretary to Government, General Department.

I have the honour to forward herewith duly stamped eight Powers of Attorney and eight Deeds of Assignment, forwarded with your ~~xxx~~ numbers noted in the margin and to request the favour of an acknowledgment.

No. 1266, 1270, 1272, 1275, 1279, 1282, 1285, 1287. dated the 26th August 1921.

Acknowledged vide 1553 dy 6-9-21.

7050/21

(12)

POWER OF ATTORNEY.

IN THE MATTER of the Inventions and Designs Regulation, 1894, of the Government of Mysore and in the matter of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, of 48, Rue St Lazare, Paris, in the Republic of France.

We, the abovenamed, L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, do hereby retain, constitute and appoint William Grant Rose of No. 2 Hastings Street in the Town of Calcutta Solicitor and Patent Agent as our Agent and Attorney to apply for and obtain from the Government of Mysore and keep in force an Exclusive Privilege or Letters Patent for "Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda" and we authorise him to sign our name to such papers and writings and do such acts regarding the same, including the appointment of a substitute or substitutes, as may be necessary or expedient.

Dated this 22nd day of April 1926.

THE COMMON SEAL of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE was hereto affixed in the presence of:-

"L'AIR LIQUIDE"
Soc. Anon. p. l'Etude et l'Exploitation des Procédés G. Claude
Un Directeur.

7050/21

(B)

ASSIGNMENT.

WHEREAS I, GEORGES CLAUDE, of 48, Rue St Lazare, Paris, in the Republic of France, Engineer, am in possession of an Invention for "Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda"

Now therefore know ye that for and in consideration of the sum of five shillings to me in hand paid, the receipt of which is hereby acknowledged, I the said GEORGES CLAUDE, have assigned and transferred and by these presents do assign and transfer unto L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, of 48, Rue St Lazare, Paris, in the Republic of France, their successors or Assigns, (hereinafter called "the said Assignee") the whole right, title and interest in and to Letters Patent to be obtained for the said Invention from the Government of Mysore the same to be held and enjoyed by the said Assignee to the end of the term or period for which such Letters Patent may be granted, or any prolongation or extension thereof, as fully and entirely as the same could have been held and enjoyed by me had this Assignment not been made.

IN WITNESS whereof I, the said GEORGES CLAUDE, have hereunto set my hand and seal this 22nd day of August 1926.

SIGNED, SEALED AND DELIVERED
at Paris
in the presence of:-

Rene Haulier, Engineer at L'air Liquide residing in Boulogne/Seine 3 Rue Alfred Lauvard

Carlos Scala Engineer at L'air Liquide residing at Paris 19 Rue Baron

7050/21

(15

APPLICATION.

TO THE DEWAN OF MYSORE.

THE APPLICATION of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, of 48, Rue St Lazare, Paris, in the Republic of France, for leave to file a Specification under Part 1 of the Mysore Inventions and Designs Regulation, 1894.

1. The Applicants are in possession of an Invention for "Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda"

they are the Assignees of the Inventor thereof; and, to the best of their information and belief, the Invention is new within the meaning of Part I of the Inventions and Designs Regulation, 1894, and no circumstance exists which, if the Applicants are authorised to file a specification and file it in accordance with that Part, will disentitle them to an Exclusive Privilege thereunder in respect of the Invention.

The Applicants have applied for a Patent in British India in respect of this Invention No. ~~5895 dated the 10th day of July 1920~~. 7050 dated the 3rd day of June 1921

LALSA PLSSLS D.P.S.C

2. The following is a description of the invention:

The present invention relates to a process for the conversion of synthetic ammonia obtained by the combination of nitrogen and hydrogen in the presence of a catalyser into a solid product applicable to agriculture, in conjunction with the production of carbonate of soda, and it consists of a process for the conversion of synthetic ammonia or of an aqueous solution thereof into a solid product, easy to transport and capable of being directly utilised in agriculture, in conjunction with the production of carbonate of soda, essentially characterised by the utilisation of the carbon dioxide obtained at the time of manufacturing the water gas that serves for the manufacture of the hydrogen intended for the synthesis, the said carbon dioxide, in the presence of sea salt and synthetic ammonia, converting the sea salt into ammonium chloride, a solid product easy to transport and rendered directly applicable to agriculture by neutralisation or equivalent operation, and into bicarbonate of soda, which, in carrying out the process, is subsequently brought back to the state of carbonate for the purpose of bringing about the liberation of carbon dioxide that is necessary in part for the re-action.

We are aware that ammonium chloride has been produced as a solid product in the production of ammonium chloride and bicarbonate of soda by the ammonia-soda reaction, that the ammonium chloride has been purified by re-crystallisation, and that the free alkali has been neutralised by hydrochloric acid before separating out the ammonium chloride and also that the (synthetic) ammonium produced by converting the

nitrogen contained in an impure water gas into cyanide and decomposing by steam has been used in conjunction with carbon dioxide obtained from the gas to produce solid ammonium chloride and carbonate of soda.

The ammonia manufactured by synthesis is in general obtained in a liquefied form or in the form of a solution in water. Part of this ammonia may be consumed directly in the liquefied form, the part that is used in refrigerating machines and is obliged to be stored and dispatched in the metal containers of commerce for instance. Another part may be transformed on the spot into nitric acid or other products.

It is more particularly to that part of the production of synthetic ammonia that is to be appropriated for manures that the present invention is applicable. This part obviously cannot be employed directly in the inconvenient form of liquid ammonia, nor even in the form of ammoniacal solution, and one of the essential purposes of the invention is to transform this important part of the manufacture rationally into a solid and stable product, easy to transport and directly utilisable in agriculture.

The method usually employed, which consists in manufacturing sulphate of ammonia by direct neutralisation of ammonia by means of sulphuric acid is not rational, since it takes up expensive sulphuric acid, which has no sort of value from the manure point of view.

In order to effect in a rational manner this transformation of ammonia into a solid product easy to transport

and capable of being directly utilised for agricultural purposes, the present invention first of all supplies means for directing the manufacturing in such a way as to obtain certain products useful to this transformation of ammonia.

It will in the first place be seen how the process of manufacturing hydrogen may be conducted in such a way as to furnish carbonic acid in abundance.

It is known that the production of water gas intended for the manufacture of the hydrogen necessary for the direct synthesis of ammonia is governed by one or other of the following equations, either of which may preponderate according to the conditions of temperature prevailing:-

$$H_2O + C = CO + H_2 \quad \ldots\ldots\ldots (1)$$

$$2H_2O + C = CO_2 + 2H_2 \quad \ldots\ldots (2)$$

The second reaction, to which one is also led by working according to the first and catalysing the mixture of the gas obtained with water vapour, seems at first sight to be of greater interest when one has in view the obtaining of hydrogen, since the same quantity of carbon then produces double the quantity of hydrogen. This hydrogen, however, is then accompanied by incombustible CO_2 instead of combustible CO. If, as generally occurs, the process in accordance with this invention requires considerable motive power, and this motive power can only be obtained from carbon, one is then led, if working according to the second equation, to manufacture for the motive power a supplementary quantity of water gas, with the disadvantage that if this supplementary gas is supplied by the same reaction, it is too rich in

purposes indicated above but instead of obtaining carbon dioxide by proceeding as indicated above, intermediate between those of the two reactions it will be possible to proceed in accordance with reaction (1) and subsequently to subject the gas so obtained that is to say $CO + H_2$ to catalysis with water vapour which will then produce carbon dioxide.

The object in view in producing in this way a considerable source of carbonic acid can now be understood.

Assuming that synthetic ammonia and carbonic acid are both available one actually possesses the elements necessary for acting on sea salt according to the reactions that are utilised in the ammonia soda industry.

The sea salt is dissolved in the ammoniacal solution supplied by synthesis, unless one prefers to add liquefied ammonia to the brine or solution of sea salt in suitable proportions and at a suitable temperature. A current of carbonic acid is sent under pressure, into the cold solution in order to precipitate bicarbonate of soda, while ammonium chloride remains in solution. The ammonium chloride however, obtained by crystallisation from this solution, would not constitute a product directly utilisable for agricultural purposes, on account of the considerable quantities of bicarbonate that it contains. In order to render it utilisable, the liquid, after a suitable concentration has eliminated from it as much bicarbonate as possible is subjected to careful neutralisation with a suitable acid, sulphuric or hydrochloride acid, and the ammonium chloride is then crystallised out. One may also have recourse to fractional crystallisations, in which advantage is taken of the lower solubility of the bicarbonate of soda. The bicarbonate is transformed into neutral carbonate by calcination and the carbonic acid liberated is joined, for subsequent operations, to that which arises from the water gas.

(22)

3. The Applicants, therefore, apply for leave to file a Specification of the Invention pursuant to Part I of the Inventions and Designs Regulation, 1894.

THE COMMON SEAL of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE was hereto affixed in the presence of:-

"L'AIR LIQUIDE"
Soc. Anon. p. l'Etude et l'Exploitation des Procédés G. Claude
Un Directeur.

L'AIR LIQUIDE
Soc. Anon. pour l'Etude et l'Exploitation
des Procédés G. Claude
48 Rue St-Lazare, 48
PARIS

We, the Applicants abovenamed, do declare that the facts stated in this Application are true to our knowledge, except as to matters stated on information and belief and as to those matters we believe them to be true.

Dated this 22nd day of April 1920.

THE COMMON SEAL of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE was hereto affixed in the presence of:-

"L'AIR LIQUIDE"
Soc. Anon. p. l'Etude et l'Exploitation des Procédés G. Claude
Un Directeur.

L'AIR LIQUIDE
Soc. Anon. pour l'Etude et l'Exploitation
des Procédés G. Claude
48 Rue St-Lazare, 48
PARIS

No Ic 3033 I+C 58-21. 7(28)

G. R. S.VI—s.-v/21]

Government of Mysore.

GENERAL DEPARTMENT.

Register No. 15 **of** 1921-22

Bangalore, the 23/11/ 1921.

based on Indian application no 7050/07.1921

WHEREAS an application, dated the 22nd April 1921 and received on the 1st August 1921, has been submitted under Section 5 of the Mysore Inventions and Designs Regulation, 1894, by L'Air Liquide, Societe Anonyme pour L'Etude et L'Exploitation des Procedes Georges Claude, of 48, Rue St Lazare, Paris

(hereinafter referred to as "the applicant") for leave to file a specification of an invention for Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda in conjunction with the production of carbonate of soda

And whereas the applicant has duly complied with all the requirements of Section 5 of the said Regulation;

The Government of Mysore are pleased, under Section 6 of the said Regulation, to authorize the applicant to file a specification of the said invention in accordance with the provisions of the said Regulation.

ORDERED, that the applicant be, and he is hereby, informed accordingly.

By Order of the Government of Mysore,

7.11.21

for Secretary to the Govt. of Mysore,
General Department.

Certified that the fees prescribed in the fourth schedule to the Mysore Inventions and Designs Regulation, 1894, in respect of the application for leave to file the said specification and of the filing thereof have been paid by the applicant, and that the specification hereinbefore described has been duly filed in accordance with the provisions of Section 8 of the said Regulation on this the 16th day of December 1921.

Issued to Applicant's Agent on 11/1/22

J Devaraj

for Secretary to the Govt. of Mysore,
General Department.

19/11

(Section 8 of the Inventions and Designs Regulation, 1894.)

8. (1) If within six months from the date of an order under Section 6, Sub-Section (1), or within such further time, not exceeding three months, as the Government of Mysore, in its discretion, may, on cause shown to its satisfaction and on payment of the fee prescribed in that behalf in the fourth schedule, see fit to allow, the applicant causes a specification of his invention to be filed in manner by this Part required, and the fee prescribed in the fourth schedule in respect of the filing of the specification to be paid, the applicant shall, subject to the other provisions of this Part, be entitled to the exclusive privilege of making, selling and using the invention in the Territories of Mysore, and of authorizing others so to do, for a term of fourteen years from the date of the filing of the specification.

(2) But an exclusive privilege in respect of an invention of a new manufacture shall, notwithstanding anything in Sub-Section (1), cease, if the inventor fails to pay, within the time limited in that behalf by the fourth schedule, any fee prescribed in that schedule in respect of the continuance of the privilege.

(3) If, nevertheless, in any case, by accident, mistake, or inadvertence, an inventor fails to pay any such fee within the time so limited, he may apply to the Government of Mysore for an enlargement of the time for making the payment.

(4) Thereupon the Government of Mysore may enlarge the time accordingly, on payment of the fee prescribed in that behalf in the fourth schedule, and subject to the following conditions, namely :—

(*a*) the time for making a payment shall not in any case be enlarged for more than three months ; and

(*b*) if any suit is instituted in respect of an infringement of the exclusive privilege committed after a failure to make a payment within the time limited for the making thereof and before the enlargement of that time, the Court disposing of the suit may, if it thinks fit, refuse to award or give any damages in respect of the infringement.

W D 02300—GPB—500—24-11-16

27930

(26)

D2934

11.12.21

94C 58-21-8.

From

Mr. W. Grant Rose

Solicitor

No.2.Hastings Street, Calcutta.

GEN'L REV. BRO
14 DEC 1921

To

The Chief Secretary to The Government of

His Highness The Maharajh of Mysore

General Department

Bangalore,Mysore.

Calcutta 10th December 1921.

Sir,

16/12

Patent Register No.15 of 1921/22.

With reference to your letter No.I C 3036/I & C 60-21-9 dated the 23rd ultimo forwarding the Government Order granting leave to file specification in respect of the application of L'Air Liquide &c being Register No.15 of 1921/22 I beg to enclose herewith under Registered cover two copies of the specification in respect of such application which together with the two copies of specification already submitted with the application will make four copies thereof and I beg that the same may be filed in terms of the order granting leave.

I also beg to enclose herewith the Government order No I C 3033/I & C 58-21-7 Register No.15 of 1921/22 dated the 23rd November 1921 so that the certificate at foot thereof certifying that the specification has been filed and the fees paid may be duly signed and the order thus completed returned to me.

I am remitting by money order Rs.30 being the prescribed fee for filing the specification herein.

Kindly acknowledge receipt of the papers enclosed herewith and the remittance sent.

I have the honour to be,
Sir

Your most obedient servant

W Grant Rose

Enclo:-

2977 (26)

17-12-21

COUPON. The remitter may write here any communication to the payee.

Rs. 90/- As. ____ being fees for filing Specifications in respect of three Patent applications of L'air Liquide etc being Register Nos 9, 10 and 18 of 1921-22.

W. Grant Rose
Remitter.

CHIEF SECRETARIAT
16 DEC 1921
OFFICE BRANCH

Roll of Gratuity for

of the Mysore.

Name of Applicant	Father's Name	Cast or Religion	Residence	Present age	Height		Date Enlistm
					Feet	Inches	

Office of the Chief Commandant,

Mysore State Troops,

Bangalore 190.

GPB.

Copy

Secre

15-21

25

I & C 58-21-8a D.2934

Duplicate.

(To be returned to the General and Revenue Secretariat for being placed in the file.

1. No. 470
2. Date of Remittance 6-1-22
3. From whom received Mrs. W. Grant
   Bose, Solicitor, Calcutta
4. Date of receipt of amount in the General and Revenue Secretariat 16-2-24
5. On what account Filing fee in
   Appeal of Suit No 15/1 of 1921-22
6. Amount (in figures and words) Rs. 30/-
   Rupees thirty only
7. The head to which it should be credited.

(To be filled in by the Treasury.)

By Appamboke

for Secretary to Government of Bengal
Genl. General Department.

The above amount has been duly received and credited in the Treasury on this date.

Date 8/1/22

Hd. Acctt. Treasurer. Try. Officer.

N. B.—Both the counterfoil and the duplicate to be returned to the General and Revenue Secretariat duly signed by the Treasury Department.

ab 15-2-1 ✓ 3 a/45

9 & C 58-21-9 2 copies 28

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE.

GENERAL AND REVENUE SECRETARIAT

Bangalore, Dated 16/4/ 1922

No. LC 3838

NOTIFICATION.

(PATENT)

The following specification of an invention has been filed in accordance with Sections 8, 9, 10 and 11 of Regulation XI of 1894 (The inventions and Designs Regulations) and is open to inspection at the Mysore Government Secretariat on application to the ~~Chief~~ Secretary to the Government of His Highness the Maharaja of Mysore, and on payment of a fee of one Rupee.

By L'Air Liquide, Société Anonyme Pour L'Étude Et L'Exploitation des Procedes Georges Claude, of 48, Rue St Lazare, Paris.

"Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda"

By Order,

N. Appamma Rao

~~Chief~~ Secretary to Government,

23.1.22.

George.

To

The Compiler, Mysore Gazette, for publication.

735

9/1/22

1521

3 dfts

G. R. S. VI—s-v/18

DRAFT.

SUBJECT.....

.....

.....

No.

Diary No. of letter replied to.....

GENERAL AND REVENUE SECRETARIAT
( )
, *the*.....*191*

Date of issue 11/1/22

Signed by M. J. A. G.

Section. Ptc
File No. 58-21
Serial No. 10

No 3839/2

To

W. Grout Rose Esq
Solicitor
.....
No. 2 Hastings Street
Calcutta.

Sir,

With reference to your letter dated 10-12-21 I am directed to forward copy of a Notification No. 1C3839/Ptc dated 5-8-21 & 11-1-22 issued by this Government in regard to the invention filed by you under Regulation XI of 1894 (The Inventions and Designs Regulations.) & to request that the same may be communicated to the party concerned.

The order granting permission to file specification is herewith returned, with the certificate at foot, duly filled in and signed.

I have, etc.,

M. Appamanyale 27.1.22

For Secretary to Government.

9/1/22

G. R. S. VI—G/32]

SUBJECT.....

.....

.....

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

, *the* 191 .

Date of issue 11/1/22

Signed by JMR J.A.G

Section I (e)

File No. 58-21

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To (1) The Supdt, Govt Museum
(2) The Chief Engineer of Mysore
(3) The Secy, Bd of Scientific.

Has the honor to forward herewith for record in his office copy of a Specification of an invention for "Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda" by Latin Lequide, Societe Anonyme Pour L'Etude Et L'Exploitation des Procedes Georges Claude, of 48, Rue St-Lazare, Paris.

B.O

over

27.12.4

for Secy to Govt of Mysore

List of enclosures.

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APPLICATION.

TO THE DEWAN OF MYSORE.

THE APPLICATION of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, of 48, Rue St Lazare, Paris, in the Republic of France, for leave to file a Specification under Part 1 of the Mysore Inventions and Designs Regulation, 1894.

1. The Applicants are in possession of an Invention for "Process for the conversion of synthetic ammonia into a solid product applicable for agricultural purposes in conjunction with the production of carbonate of soda"

they are the Assignees of the Inventor thereof; and, to the best of their information and belief, the Invention is new within the meaning of Part I of the Inventions and Designs Regulation, 1894, and no circumstance exists which, if the Applicants are authorised to file a specification and file it in accordance with that Part, will disentitle them to an Exclusive Privilege thereunder in respect of the Invention.

The Applicants have applied for a Patent in British India in respect of this Invention No. ~~5895 dated the 10th day of July, 1920.~~ 7050 dated the 3rd day of June 1921

L.a. L.S.a P.L.E.& L.S. D.P.A.C

2. The following is a description of the invention:

The present invention relates to a process for the conversion of synthetic ammonia obtained by the combination of nitrogen and hydrogen in the presence of a catalyser into a solid product applicable to agriculture, in conjunction with the production of carbonate of soda, and it consists of a process for the conversion of synthetic ammonia or of an aqueous solution thereof into a solid product, easy to transport and capable of being directly utilised in agriculture, in conjunction with the production of carbonate of soda, essentially characterised by the utilisation of the carbon dioxide obtained at the time of manufacturing the water gas that serves for the manufacture of the hydrogen intended for the synthesis, the said carbon dioxide, in the presence of sea salt and synthetic ammonia, converting the sea salt into ammonium chloride, a solid product easy to transport and rendered directly applicable to agriculture by neutralisation or equivalent operation, and into bicarbonate of soda, which, in carrying out the process, is subsequently brought back to the state of carbonate for the purpose of bringing about the liberation of carbon dioxide that is necessary in part for the re-action.

We are aware that ammonium chloride has been produced as a solid product in the production of ammonium chloride and bicarbonate of soda by the ammonia-soda reaction, that the ammonium chloride has been purified by re-crystallisation, and that the free alkali has been neutralised by hydrochloric acid before separating out the ammonium chloride and also that the (synthetic) ammonium produced by converting the

and capable of being directly utilised for agricultural purposes, the present invention first of all supplies means for directing the manufacturing in such a way as to obtain certain products useful to this transformation of ammonia.

It will in the first place be seen how the process of manufacturing hydrogen may be conducted in such a way as to furnish carbonic acid in abundance.

It is known that the production of water gas intended for the manufacture of the hydrogen necessary for the direct synthesis of ammonia is governed by one or other of the following equations, either of which may preponderate according to the conditions of temperature prevailing:-

$$H_2O + C = CO + H_2 \quad \ldots\ldots\ldots (1)$$

$$2H_2O + C = CO_2 + 2H_2 \quad \ldots\ldots (2)$$

The second reaction, to which one is also led by working according to the first and catalysing the mixture of the gas obtained with water vapour, seems at first sight to be of greater interest when one has in view the obtaining of hydrogen, since the same quantity of carbon then produces double the quantity of hydrogen. This hydrogen, however, is then accompanied by incombustible CO_2 instead of combustible CO. If, as generally occurs, the process in accordance with this invention requires considerable motive power, and this motive power can only be obtained from carbon, one is then led, if working according to the second equation, to manufacture for the motive power a supplementary quantity of water gas, with the disadvantage that if this supplementary gas is supplied by the same reaction, it is too rich in

purposes indicated above but instead of obtaining carbon dioxide by proceeding as indicated above, intermediate between those of the two reactions it will be possible to proceed in accordance with reaction (1) and subsequently to subject the gas so obtained that is to say $CO + H_2$ to catalysis with water vapour which will then produce carbon dioxide.

The object in view in producing in this way a considerable source of carbonic acid can now be understood.

Assuming that synthetic ammonia and carbonic acid are both available one actually possesses the elements necessary for acting on sea salt according to the reactions that are utilised in the ammonia soda industry.

The sea salt is dissolved in the ammoniacal solution supplied by synthesis, unless one prefers to add liquefied ammonia to the brine or solution of sea salt in suitable proportions and at a suitable temperature. A current of carbonic acid is sent under pressure, into the cold solution in order to precipitate bicarbonate of soda, while ammonium chloride remains in solution. The ammonium chloride however, obtained by crystallisation from this solution, would not constitute a product directly utilisable for agricultural purposes, on account of the considerable quantities of bicarbonate that it contains. In order to render it utilisable, the liquid, after a suitable concentration has eliminated from it as much bicarbonate as possible is subjected to careful neutralisation with a suitable acid, sulphuric or hydrochloride acid, and the ammonium chloride is then crystallised out. One may also have recourse to fractional crystallisations, in which advantage is taken of the lower solubility of the bicarbonate of soda. The bicarbonate is transformed into neutral carbonate by calcination and the carbonic acid liberated is joined, for subsequent operations, to that which arises from the water gas.

3. The Applicants, therefore, apply for leave to file a Specification of the Invention pursuant to Part I of the Inventions and Designs Regulation, 1894.

THE COMMON SEAL of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE was hereto affixed in the presence of:-

"L'AIR LIQUIDE"
Soc. Anon. pr l'Etude et l'Exploitation des Procédés G. Claude
Un Directeur.

L'AIR LIQUIDE Soc. Anonyme pour l'Etude et l'exploitation des Procédés Georges Claude 48 Rue St-Lazare PARIS

We, the Applicants abovenamed, do declare that the facts stated in this Application are true to our knowledge, except as to matters stated on information and belief and as to those matters we believe them to be true.

Dated this 22nd day of April 1926.

THE COMMON SEAL of L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE was hereto affixed in the presence of:-

L'AIR LIQUIDE Soc. Anonyme pour l'Etude et l'exploitation des Procédés Georges Claude 48 Rue St-Lazare PARIS

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